ination of the specimen, because I have not seen it since. The spleen was successfully removed.

Doctor Chas. G. Levison: I am sorry that not more has been said with reference to the diagnosis of this condition. Death following splenectomy performed for splenic anemia is frequently the result of a post-operative thrombosis of the mesenteric vessels. It seems to me that thromboses are more apt to occur in splenectomies performed for these conditions than following any other operation. In several splenectomies performed in this city, death was caused by a thrombosis of the mesenteric vessels. In a splenectomy that I performed the patient developed a thrombosis of the right innominate vein which was removed at an operation performed to remedy the condition. The patient subsequently recovered, not having suffered from the effects of the splenectomy, but the thrombosis nearly cost him his life. As far as the diagnosis of splenic tumor is concerned, I can recall one case of a Grawitz tumor where I made the diagnosis of a splcen. This diagnosis was made because of the fact that the tumor was transversed at its lower border by the transverse colon, and as we are led to believe that the colon is always in front of the kidney, I diagnosed the growth as a splenic tumor. At the autopsy the tumor was found to be an adrenal growth which had grown downwards in front of the kidney and had pushed the transverse colon below. Another tumor of interest from a diagnostic point of view was seen by me recently and was seen by a number of gentlemen none of whom were able to make a correct diagnosis. The tumor occupied the position of the spleen, but it was not closely applied to the ribs, as is always the case with splenic tumors; a notch could be felt, however. Its relation to the ribs made me hesitate to call the tumor spleen. At the autopsy a sarcoma of an undescended testicle was found.

Dr. Wm. Fitch Cheney: I would like to know a little more about the indications for operation in this case. Even admitting that we have definitely made up our minds that the tumor is an enlarged spleen, with evidences as to the nature of the splenomegaly, we do not advise operation in every case, and even when we do we try every other measure first, because the mortality is so high. We generally prefer to let a man live as long as he can without surgery. I would like to know the indications for removal in this case.

PULMONARY TUBERCULOSIS AS AFFECTED BY CERTAIN OTHER DISEASES.*

By JOHN C. KING, M. D., Banning.

While observing some thousands of cases of consumption, I have become interested in noting the apparent effect of other diseases on the pulmonary condition. The complications of tuberculosis are apt to be tubercular. Thus in connection with pre-existing pulmonary tuberculosis we find metastatic affections of other organs, typified by meningitis, pleuritis, orchitis, cold abscesses, etc. They are merely extensions of the original disease and have little or no effect upon the parent, except as they assist in destroying vital resistance. Even in the rare event of their origin from independent infection their influence over the course of the lung disease is negligible. However, this paper will not consider metastases.

Any disease may attack the victim of pulmonary tuberculosis and the question arises whether mutual reaction between diseases may occur. Our medical fathers were fond of tracing antagonisms between diseases; for instance, some of them claimed that consumption and cancer were mutually exclusive. Coley's treatment of inoperable sarcoma is a modern example. We shall not discuss the basis of these supposed antagonisms because, in most cases, the fact of their existence remains in doubt. However, we are persuaded that one disease may influence the clinical history and prognosis of another.

I have seen many cases of co-existing consumption and typhoid fever, cases from the Imperial and Coachella Valleys and from Banning. Advanced tubercular patients do not seem to easily acquire typhoid but many in the second stage do. The course of the fever seems influenced by the chest trouble. On the other hand, in every case observed by me, the pulmonary disease has gradually improved and the improvement has continued to final cure—or is so continuing (for I do not call a case of pulmonary tuberculosis "cured" until after it has remained well three years). I am not familiar with an adequate explanation of this phenomenon—simply present the facts as they have occurred in my practice. At least four of these patients were in bad condition when attacked by typhoid.

My tubercular friends have finished a fair percentage of cases of gonorrhoea. Even in otherwise well people I feel somewhat incompetent to cope with the gonococcus. In patients suffering from pulmonary tuberculosis the effort is still more discouraging. The discharge continues indefinitely or, if it clears up, recurs again and again. The mucous membrane seems especially prepared to become the abode of the germ. Acute inflammatory complications, as orchitis, are not apt to occur. The disease seems chronic and sluggish from the start. However, the point is how, if at all, does gonorrhoea affect the pulmonary conditions? All my patients have suffered from decided aggravation of pulmonary symptoms. I can recall three young men who had been doing remarkably well and who, after gonorrhoea, rapidly failed and died. This result, while not so precipitous as in the three cases referred to, has been quite constant in my experience. I have learned to look upon the acquirement of a clap as a greater misfortune to a consumptive than to others.

On the other hand, syphilis does not seem to possess such an unfortunate influence. Of course, we may find deposits of gummata in the lung, may find them co-existent with tubercular deposit. Gumma of the lung may even simulate tuberculosis. Still, tubercular syphilitics frequently recover from tuberculosis, especially when syphilitic treatment is persistently followed. It does not seem to me that syphilis when recognized and cared for, very much affects the prognosis of pulmonary tuberculosis, apart from the general anaemia and depression incident to syphilitic disease. Venereal infection is so extremely common that many, of both sexes, exhibit the complication. And yet, I do not remember having read any discussion of the effect of venereal dis-

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eases upon tuberculosis. It is a point worthy of attention and one that does not seem to have been other than very casually emphasized.

Nephritis is a common complication of pulmonary tuberculosis. In many instances, no doubt, the kidney inflammation is of tubercular origin. Indeed, one can with difficulty differentiate between a tubercular and non-tubercular etiology. Albumin and casts are present in either case and tubercle bacilli can only rarely be recovered from the urine. Routine examination of the urine will disclose unexpected frequency of nephritis. If the urine is not examined this condition often eludes notice. The implication is that nephritis has little effect upon the pulmonary disease. I have not found a combination of pulmonary and kidney disease to be necessarily fatal. Many patients recover who have exhibited albumin and casts in the urine. To what extent the combination reduces the percentage of recovery I am unable to state but am confident the condition of the lungs is not materially aggravated by the nephritis.

The laity place great stress upon the appearance of edema, especially of the feet, as an indication of approaching death. Undoubtedly, in tuberculosis, edema is often a terminal symptom, the result of renal insufficiency which, in turn, depends on tubercular kidney. In this discussion all such cases are eliminated.

Pneumococci are found in the sputum of three-fourths of those who come to Banning on account of pulmonary tuberculosis, sometimes very few—again very many. Nevertheless, I have never seen a case of genuine acute pneumonia among these people. Indeed, I have not seen over a dozen cases of pneumonia since coming to Banning, twenty-five years ago, and only two of them were Banning products. Consumptives here are occasionally attacked by a sub-acute form of bronco pneumonia, which stimulates the activity of the tubercular process in the lung. This occurs more frequently during seasons of epidemic influenza. The affected portion of the lung rarely clears up in toto, even when previously free from tubercular infection. When the disease disappears, which it does slowly, the tubercular infiltration will be found to have invaded additional territory. The sputum, during attacks of this character, may display a preponderance of any one of many germs, pneumo-strepto or staphylo-cocci, or Friedlander's or influenza bacilli. I found one almost pure culture of micrococcus tetragenus. Whatever the origin, these sub-acute inflammations of the lung should be treated with promptness and energy, and even then retard or prevent recovery from the tuberculosis.

Pneumonic hepatization may result in breaking down and dissemination of an old, incapsulated tubercular focus, or it may provide suitable soil for implantation of tubercle bacilli, but the mere presence of even large numbers of pneumococci in the sputum is of little significance. An attack of pleurisy is always menacing, and each recurring acute attack renders the prognosis graver. Many chest pains are insignificant as regards prognosis. Pleurodynia, intercostal neuralgia and the pain resulting from the stretching of old pleural adhesions are not necessarily evidence or cause of advancing disease in the lung. But a fresh inflammation of the pleura, usually tubercular, is nearly always followed by further involvement of the lung or by renewed activity in the already diseased portion.

Pregnancy and childbirth have always been deemed hazardous to women suffering from pulmonary tuberculosis, not per se but because such patients have been supposed to decline rapidly thereafter. Some obstetricians have even advocated emptying the uterus in order to afford the woman a chance to recover from the pulmonary disease. I have advised prevention of conception that the woman might be saved the danger of child bearing, because, to my mind, there is a vast moral difference between prevention and destruction of life. In looking over my records I find twenty-four women, in various stages of consumption, whom I have attended in confinement. Six of these died later from the pulmonary affection, three of them within a month after delivery. Their children are all living and well. Eighteen, or 75 per cent recovered, a much larger proportion than we have been led to believe possible. Of course I have had under my care a much larger number of women who have borne children subsequent to the appearance of tubercle bacilli in the sputum, but am unable to report the mortality in such cases owing to imperfect records. The results, however, have been excellent. In some instances, doubtless, the burden of child bearing has turned the scale against recovery. Still I am sure that modern hygiene and treatment have modified this particular danger. I have never felt justified in advising production of abortion because of consumption. If the mother's condition is hopeless such a course is unnecessary and criminal. If the woman may otherwise recover, the procedure is equally unnecessary and abhorent to good morals.

The idea of the extreme danger of child bearing, to such women, has been handed down to us from the fathers. They also insisted upon the heredity of the disease. The production of abortion was justified, in their eyes, as much by the latter factor as by the former. We no longer believe tuberculosis to be hereditary, except in the sense of predisposition to the disease, therefore abortion on that ground is no longer thought of. Anyhow no man would deem himself at liberty to abort life in a syphilitic woman because the child might inherit syphilis. Our conception of the pathology of tuberculosis and our method of its treatment have radically changed and, to my mind, the change has obviated the necessity of abortion. I am aware that many consider it a simple thing to dilate the uterus, remove its contents and curette thoroughly, with aseptic precaution. It is not. Aside from the morality (or immorality) of the situation, the effect on the lung of the tuberculous mother is bad. Spontaneous abortion and, particularly, abortion produced by the woman herself often, indeed usually, results in manifest aggravation of pulmonary symptoms. And this is the case where no evidence of sepsis is apparent. I believe that delivery at term is the lesser evil. The

experience of any one man can never determine any problem. However, my present view, the result of my personal experience, is exactly opposite to that held by me thirty-five to twenty years ago. I predict that in the future this form of crime will cease.

Surgical operations seem well borne by pulmonary invalids. I have never observed a deleterious effect upon the lungs following surgery upon other organs. We are warned to avoid the administration of anaesthetics in these cases. In my work both ether and the A. C. E. mixture have been used without obvious injury. I regard pulmonary tuberculosis a partial contra-indication to general anaesthesia but do so in deference to authority. My own experience teaches otherwise. Hemorrhage and shock seem as well borne as by other patients of lowered vitality. Indeed, well indicated surgery appears of decided benefit in these as in other patients. Women especially, are benefited. I have done many curettements, trachelorrhaphies, perineorrhaphies and a few major abdominal operations incident to female pelvic diseases with apparent benefit to the pulmonary condition. To me, it seems that in the presence of surgical diseases or conditions the pulmonary patient is less amenable to treatment, fails more rapidly, has less chance for recovery; and that pulmonary consumption, instead of being a contra-indication to surgical interference, is a positive indication for it when needed. Necessarily, one should use judgment. Moribund cases, even when tubercular, are not attractive to the surgeon. Advanced tuberculosis is a bar to operation in most instances, but the ordinary consumptive should never be refused surgical aid because of tuberculosis.

The simple surgery of the nose and throat is particularly essential. Using care not to operate upon hopeless cases, at least not with the intent of benefiting the chest, I make it a point to establish free nasal respiration by removal of turbinates, spurs, polypi, adenoids, tonsils or whatever may produce obstruction. When such work is needed, the chances of recovery from pulmonary tuberculosis will be greatly enhanced if it is done.

Too little attention is paid to the nose by our lung specialists. Nose and throat men are constantly clearing away obstructions, but when the patient has been pronounced tubercular they are apt to let him alone, not appearing to realize that additional indication for this work has arisen. I have seen a nose full of polypi which had passed through the hands of several prominent lung men. Two or three of them did not examine the nose and the one who did thought an operation inadvisable owing to the condition of the lung. Now the lungs were in fair shape but all the air they received came through the mouth and was of too low temperature and unfiltered. Really, the operation was doubly indicated because of the lung disease. If ever a specialist in diseases of the whole body is needed it is for the tubercular. The patient can easily spare a little of the wonderful acuteness in determining percussion resistance, providing his physician is big enough to consider other organs as well as the lungs.

Of all surgical diseases appendicitis is, perhaps, most menacing. At one time I endeavored to avoid operation, believing that co-existing pulmonary tuberculosis rendered the surgical prognosis graver and that an operation would aggravate the pulmonary disease. In many of these patients the appendicitis becomes chronic, the suffering is severe and the inflammation in the lung advances rapidly. Recovery without operation is rarer than in other patients. When, as often happens, an abscess forms and must be opened, healing is slow and fistula common. I have removed the appendix for several consumptives and have had others operate for me, and I regret every delay. Not that any patient has died from the appendicitis or from the operation but because delay has injuriously influenced the lung. I am convinced that pulmonary tuberculosis is an additional indication for early appendectomy, regardless whether the appendicitis is tubercular or otherwise. And, by the way, diagnosis of the etiology is quite impossible prior to operation. These random observations cannot be dignified by the term "paper" but, to me, they represent practical deductions from personal experience.

POLYCLINIC GATHERING.

(March 10, 1909.)

Doctor Ryfkogel: I desire to present three patients who have been operated upon for varicose veins by venous anastomosis. You are familiar with the various types of varicose veins and will remember that in some patients you see localized varices accompanied by considerable edema, but with the valves in the saphenous vein competent. In these the deep veins are at fault and operation is useless. In another type in which the deep veins are probably varicose, you will see more or less extensive dilatations at the junctions of the deep and superficial veins and with no incompetency of the saphenous valves—these cases should only be operated upon for the purpose of relieving imminent rupture or possibly to relieve the patient of an annoying deformity. In another type there are extensive varices of the superficial veins and the valves of the saphenous are incompetent and the pressure of the column of blood extending from the heart to the leg is sufficient to interfere seriously with the nutrition of the skin, producing the well-known varicose ulcer. Delbet has made an interesting experiment to show the difference in pressure in these cases between the proximal and distal end of the vein. He proved that when a patient is lying down the pressure in the proximal end was greater by 5 ccm of mercury than in the distal. When he stood the difference was 10 ccm, but in violent exercise rose to 16 ccm. This experiment demonstrates the importance of the back pressure as an etiologic factor in certain varicose veins. Trendelenberg's operation removes this back pressure by removing a segment of the vein. The saphenous vein, however, has a definite function, that of forming a by-path for the blood when the deep veins are partially closed by muscular exercise and for that reason Trendelenberg does not entirely restore the normal condition. For this reason Delbet devised the operation I have performed in both sides on one of these patients and on one side of a second. The results of the operations are entirely satisfactory. The operation consists in making a termino-lateral anastomosis of the saphenous vein into the femoral below the first one or two valves. The blood column is then sup-